

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
20 October 2005 (20.10.2005)

PCT

(10) International Publication Number
WO 2005/099298 A1

(51) International Patent Classification⁷: **H04Q 11/00**,
H04J 3/16

[US/US]; 4563 Whimbrel Pl., Winter Park, Florida 32792
(US). WANG, Allen [US/US]; 3416 Canoncita Lane,
Plano, Texas 35023 (US).

(21) International Application Number:
PCT/EP2005/051565

(74) Common Representative: SIEMENS AKTIENGE-
SELLSCHAFT; Postfach 22 16 34, 80506 München
(DE).

(22) International Filing Date: 8 April 2005 (08.04.2005)

(25) Filing Language: English

(81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,
MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM,
PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,
ZA, ZM, ZW.

(26) Publication Language: English

(30) Priority Data:
60/561,005 9 April 2004 (09.04.2004) US

(71) Applicant (*for all designated States except US*):
SIEMENS AKTIENGESELLSCHAFT [DE/DE];
Wittelsbacherplatz 2, 80333 München (DE).

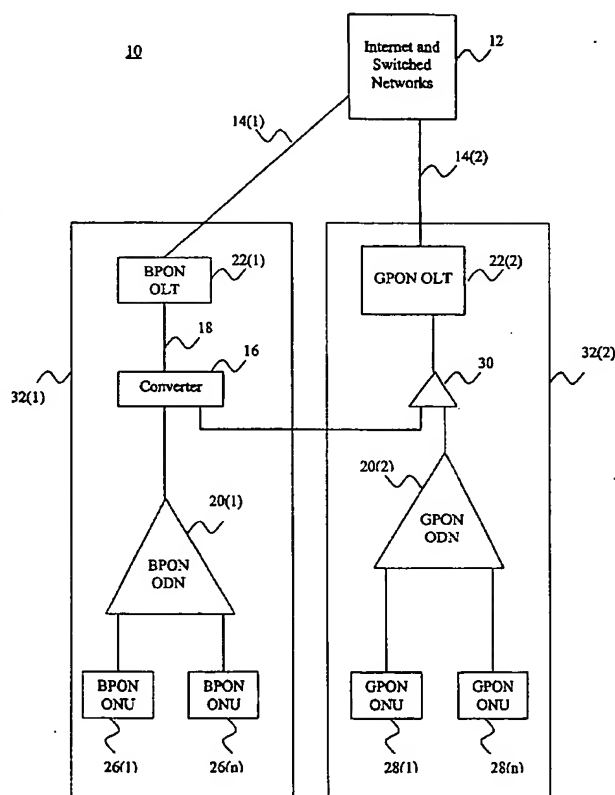
(72) Inventors; and

(84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, GH,

(75) Inventors/Applicants (*for US only*): BRIDGES, Brad

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR COMMUNICATING BETWEEN A LEGACY PON NETWORK AND AN UP-
GRADED PON NETWORK



(57) Abstract: Methods and apparatuses consistent with the present invention facilitate the transition from a legacy network [32(1)] to an upgraded network [32(2)] by providing a converter [16] that communicates between the legacy network and the upgraded network. The converter [16] is provisioned such that legacy devices, such as Optical Network Units (ONUs) [26], appear as upgraded devices to the upgraded network [32(2)], while the upgraded network [32(2)] looks like a legacy network to the legacy devices.



GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2005/051565

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04Q11/00 H04J3/16

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H04Q H04J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 2004/008318 A (FLEXLIGHT NETWORKS LTD; SHRAGA, EYAL; MARMUR, OREN; RON, ILAN) 22 January 2004 (2004-01-22) claims 1-10	1-19
A	WO 03/010904 A (MARCONI COMMUNICATIONS, INC; MARCONI INTELLECTUAL PROPERTY INC) 6 February 2003 (2003-02-06) the whole document	1,7,15
A	DE 44 06 509 A1 (SIEMENS AG, 80333 MUENCHEN, DE) 31 August 1995 (1995-08-31) the whole document	1,7,15
A	US 2003/048801 A1 (SALA DOLORS ET AL) 13 March 2003 (2003-03-13) the whole document	2,10,15
	----- -/--	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- * & * document member of the same patent family

Date of the actual completion of the international search

24 June 2005

Date of mailing of the international search report

01/07/2005

Name and mailing address of the ISA
European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax (+31-70) 340-3016

Authorized officer

Belloni, P

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2005/051565

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 351 582 B1 (DYKE PETER JOHN ET AL) 26 February 2002 (2002-02-26) claims 1-9	11,14
P,X	US 2004/136712 A1 (STISCIA JAMES ET AL) 15 July 2004 (2004-07-15) the whole document	1-19

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2005/051565

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 2004008318	A	22-01-2004	US 2004202484 A1	14-10-2004
			AU 2003237587 A1	02-02-2004
			CA 2491222 A1	22-01-2004
			EP 1532527 A2	25-05-2005
			WO 2004008318 A2	22-01-2004
WO 03010904	A	06-02-2003	WO 03010904 A2	06-02-2003
			US 2003076560 A1	24-04-2003
DE 4406509	A1	31-08-1995	EP 0673180 A2	20-09-1995
US 2003048801	A1	13-03-2003	WO 03017545 A1	27-02-2003
US 6351582	B1	26-02-2002	NONE	
US 2004136712	A1	15-07-2004	WO 2004064263 A2	29-07-2004